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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,085	04/06/2006	James Eldon	878A.0010.U1(US)	4067
29683	7590	01/10/2008	EXAMINER	
HARRINGTON & SMITH, PC			HAILEMARIAM, EMMANUEL	
4 RESEARCH DRIVE			ART UNIT	PAPER NUMBER
SHELTON, CT 06484-6212			2629	
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			01/10/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/541,085

**Applicant(s)**

ELDON ET AL.

**Examiner**

Emmanuel Hailemariam

**Art Unit**

2629

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-11,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,11, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lueders (6067074) in view of Ostergard et al (6704004).

**As to claim 1**, Lueders disclose a keypad comprising: a set of switches; a set of key elements each capable of being moved by a user so as to operate a respective switch (fig.3 (28); and a display device (col.2 line 66, col.3 1-3), the display pattern of which can be varied under the control of a display controller (fig.1 (10), col.3 lines 45-48) and arranged so as to be capable of propagating two or more patterns of light from at least some of the key elements (fig.2 (12), (fig.6-8), col.4 lines 15-17);

whereby indicia may be displayed from the key elements and the displayed indicia varied under the control of the display controller. (Col.2 lines 8 -22), (fig.10 (10), col.3 lines 45-48, fig.6 (64). Lueders does not teach wherein each mechanical key element is located between each outer pad and the respective switch.

However, Ostergard discloses wherein each mechanical key element is located between each outer pad and the respective switch (**fig.4 (20), mechanical element**), (**fig.4 (110) switch**).

Therefore, it would have been obvious to one skill in the art at the time of invention was made to have incorporated the outer pad and the respective switch of Ostergard into Lueders's keypad, because this will allow Lueders's keypad can be used to replace the softkeys in certain portable electronic devices.

**As to claim 2**, Ostergard discloses a keypad as claimed in claim 1, wherein the display device is in the form of a flexible film and *is arranged to flex when a user moves a key element to operate a respective switch (fig.4(110) ), col.6 lines 48-62)).*

**As to claim 3** Ostergard discloses a keypad as claimed in claim 2, wherein the flexible film *rigid elements* interconnects the key elements (**fig.4 (22),(rigid elements))**).

**As to claim 4**, Lueders disclose a keypad as claimed in claim 1, wherein each key element comprises an outer pad for actuation by a user, and the display device (fig.2 (34)) is located between each outer pad (fig.3 (36). Fig.2 (36)) and the respective switch (fig.3 (28)).

**As to claim 5**, Lueders disclose a keypad as claimed in claim 4, wherein each outer pad is transparent (col.7lines 62-34).

**As to claim 6**, Lueders disclose a keypad as claimed in claim 1, wherein the display device is a light-emitting display device (col.4 lines 55-59).

**As to claim 7**, Lueders disclose an electronic device including a keypad as claimed in am/ claim 1 and the said display controller (col.4 lines 19-24).

**As to claim 8**, Lueders disclose an electronic device as claimed in claim 7, wherein the display controller is arranged to, in a first mode, cause the display device to display a first set of indicia from each of the key elements and, in a second mode,

display a second set of indicia from each of the key elements (col.6 lines 61-67, col.7 lines 1-9).

**As to claim 9**, Lueders disclose an electronic device as claimed in claim 8, wherein the first mode is a numeric input mode and the first set of indicia are numeric indicia (see Abstract fig.8 col. 4 lines 55-59 ), and the second mode is an alphabetic input mode and the first set of indicia are alphabetic indicia (col.4lines 55-62).

**As to claim 10**, Lueders disclose an electronic device as claimed in claim 9, wherein in the first and second modes the indicia displayed from each key element is indicative of the character that would be input on pressing the key element (col.2 lines 62-67 col.3 lines 1- 3).

**As to claim 11**, Lueders disclose an electronic device as claimed in claim 10, wherein in the second mode the character that would be input on pressing the key element is dependent on the number of times the key element has been pressed within a predetermined time period of each previous such press without the pressing of another of the keys element (fig.9) (91) (col.2 lines 61-67 col.3 lines 1-3).

**As to claim 14**, Ostergard disclose a keypad as claimed in claim 1, wherein each switch is positioned directly underneath a nib of its respective key element (**fig.4**) (22,110), col6 lines 48 – 62).

**As to claim 15**, Ostergard disclose an electronic device as claimed in claim 8 wherein the key elements are arranged to protrude through individual holes in a housing

of the electronic device and fig.6A and fig 6B (20a,20b,20c) and fig 7A (240), col.7 lines 64-67).

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-3 and 5-11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Hailemariam whose telephone number is 571-270-1545. The examiner can normally be reached on M-F 8:00am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EH

  
AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER